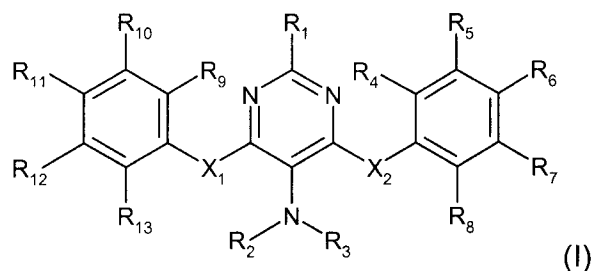


### Amendments to the Claims

Amendments are shown with additions and ~~deletions~~ or ~~[[deletions]]~~ as useful for clarity. This listing will replace are prior versions and listings of the claims in the application.

#### We Claim:

Claim 1. (Withdrawn) A method of controlling ectoparasites on a mammal comprising administering to said mammal a compound of formula I



wherein

R<sub>1</sub> is hydrogen, halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, NR<sub>2</sub>R<sub>3</sub>, unsubstituted or one- to five-fold substituted aryl or unsubstituted or substituted hetaryl, the substituents selected from the group consisting of halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and NR<sub>2</sub>R<sub>3</sub>;

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl or unsubstituted or one-to five-fold substituted benzyl, the substituents selected from the group consisting of halogen cyano, OH, SH NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-Alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl;

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, cyano, nitro, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-C<sub>1</sub>-C<sub>6</sub>-alkylamino, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonylamino, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonylamino, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, or unsubstituted or one-to five-fold substituted aryl or unsubstituted or substituted hetaryl, the substituents selected from the group consisting of halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and NR<sub>2</sub>R<sub>3</sub>;

X<sub>1</sub> and X<sub>2</sub>, independently of one another, are C(R<sub>14</sub>)(R<sub>15</sub>), NR<sub>14</sub>, O, S, SO or SO<sub>2</sub>; and

R<sub>14</sub> and R<sub>15</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl or halo-C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl.

Claim 2. (Withdrawn) The method of claim 1, wherein

R<sub>1</sub> is hydrogen, halogen, NO<sub>2</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylthio or halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio.

Claim 3. (Withdrawn) The method of claim 1, wherein

R<sub>1</sub> is hydrogen, halogen, NO<sub>2</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy or halo-C<sub>1</sub>-C<sub>6</sub> alkoxy.

Claim 4. (Withdrawn) The method of claim 1, wherein

R<sub>1</sub> is hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy.

Claim 5. (Withdrawn) The method of claim 1, wherein

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl or unsubstituted or one- to five-fold substituted benzyl, the substituents selected from the group consisting of halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub> alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub> alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl.

Claim 6. (Withdrawn) The method of claim 1, wherein

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>4</sub>-alkylcarbonyl or benzyl.

Claim 7. (Withdrawn) The method of claim 1, wherein

R<sub>2</sub> and R<sub>3</sub> independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkyl, benzyl or formyl.

Claim 8. (Withdrawn) The method of claim 1, wherein

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, cyano, nitro, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio or unsubstituted or one- to five-fold substituted aryl or unsubstituted or substituted hetaryl, the substituents selected from the group consisting of halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and NR<sub>2</sub>R<sub>3</sub>.

Claim 9. (Withdrawn) The method of claim 1, wherein

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, nitro, C<sub>1</sub>-C<sub>4</sub>-alkyl, halo-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy or halo-C<sub>1</sub>-C<sub>4</sub>-alkoxy.

Claim 10. (Withdrawn) The method of claim 1, wherein

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, nitro, C<sub>1</sub>-C<sub>2</sub>-alkyl or halo-C<sub>1</sub>-C<sub>2</sub>-alkyl.

Claim 11. (Withdrawn) The method of claim 1, wherein

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, nitro or CF<sub>3</sub>.

Claim 12. (Withdrawn) The method of claim 1, wherein

X<sub>1</sub> and X<sub>2</sub>, independently of one another, are NR<sub>14</sub>, O or S.

Claim 13. (Withdrawn) The method of claim 1, wherein

X<sub>1</sub> and X<sub>2</sub>, independently of one another, are NH, O or S.

Claim 14. (Withdrawn) The method of claim 1, wherein  
X<sub>1</sub> and X<sub>2</sub> are O.

Claim 15. (Withdrawn) The method of claim 1, wherein  
R<sub>14</sub> and R<sub>15</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>4</sub>-alkylcarbonyl.

Claim 16. (Withdrawn) The method of claim 1, wherein  
R<sub>14</sub> and R<sub>15</sub>, independently of one another, signify hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl.

Claim 17. (Withdrawn) The method of claim 1, wherein  
R<sub>14</sub> and R<sub>15</sub> signify hydrogen.

Claim 18. (Withdrawn) The method of claim 1, wherein  
R<sub>1</sub> is hydrogen, halogen, NO<sub>2</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylthio or halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio;  
R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl or benzyl;  
R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, cyano, nitro, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio or unsubstituted or one- to five-fold substituted aryl or unsubstituted or substituted hetaryl, the substituents selected from the group consisting of halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-

alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and NR<sub>2</sub>R<sub>3</sub>;

X<sub>1</sub> and X<sub>2</sub>, independently of one another, are NR<sub>14</sub>, O or S; and

R<sub>14</sub> signifies hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>4</sub>-alkylcarbonyl.

Claim 19. (Withdrawn) The method of claim 1, wherein

R<sub>1</sub> is hydrogen, halogen, NO<sub>2</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy or halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy;

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>4</sub>-alkylcarbonyl or benzyl;

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, nitro, C<sub>1</sub>-C<sub>4</sub>-alkyl, halo-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy or halo-C<sub>1</sub>-C<sub>4</sub>-alkoxy; and

X<sub>1</sub> and X<sub>2</sub>, independently of one another, are NH, O or S.

Claim 20. (Withdrawn) The method of claim 1, wherein

R<sub>1</sub> is hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy;

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkyl, formyl or benzyl;

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, nitro, C<sub>1</sub>-C<sub>2</sub>-alkyl or halo-C<sub>1</sub>-C<sub>2</sub>-alkyl; and

X<sub>1</sub> and X<sub>2</sub> are O.

Claim 21. (Withdrawn) The method of claim 1, wherein

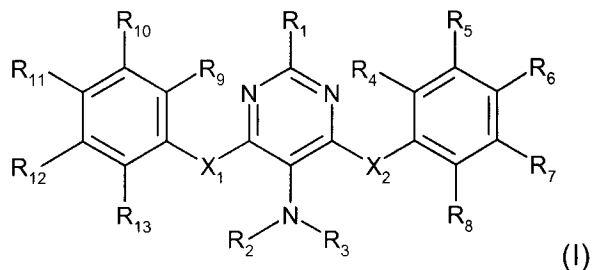
R<sub>1</sub> is hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy;

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkyl, formyl or benzyl;

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub> independently of one another, are hydrogen, halogen, nitro or CF<sub>3</sub>; and

X<sub>1</sub> and X<sub>2</sub> are O.

Claim 22. (Currently amended) An ectoparasitocidal composition for administration to a non-human animal comprising a compound of formula I



wherein

R<sub>1</sub> is hydrogen, halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy; halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, NR<sub>2</sub>R<sub>3</sub>, unsubstituted or one- to five-fold substituted aryl or unsubstituted or substituted hetaryl, the substituents selected from the group consisting of halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and NR<sub>2</sub>R<sub>3</sub>;

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl or unsubstituted or one-to five-fold substituted benzyl, the substituents selected from the group consisting of halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-

alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl;

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, cyano, nitro, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-C<sub>1</sub>-C<sub>6</sub>-alkylamino, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonylamino, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonylamino, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, or unsubstituted or one- to five-fold substituted aryl or unsubstituted or substituted hetaryl, the substituents selected from the group consisting of halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-X<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and NR<sub>2</sub>R<sub>3</sub>;

X<sub>1</sub> and X<sub>2</sub>, independently of one another, are C(R<sub>14</sub>)(R<sub>15</sub>), NR<sub>14</sub>, O, S, SO or SO<sub>2</sub>; and R<sub>14</sub> and R<sub>15</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl or halo-C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl;

and at least one of a physiologically acceptable carrier or dispersant.

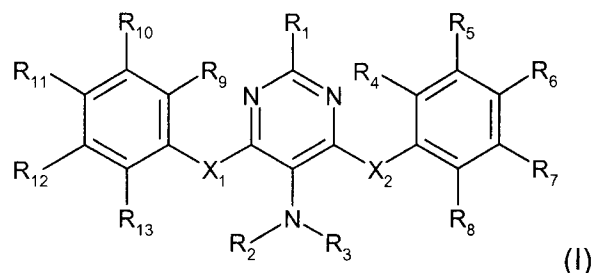
Claim 23. (Previously presented) The ectoparasitical composition according to claim 22 wherein said composition is in a pour-on or spot-on formulation.

Claim 24. (Previously withdrawn; Currently amended) A method of controlling ectoparasites comprising administering an effective amount of ~~at least one compound of formula I~~ a composition according to claim [[1]] 22 to the habitat of the parasites.



Claims 25-26. (Cancelled)

Claim 27. (Currently amended) An ectoparasitical composition for administration to a non-human animal comprising a compound of formula I



wherein R<sub>1</sub> is hydrogen, halogen, NO<sub>2</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylthio or halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio;

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-X<sub>6</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, di-C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl or benzyl;

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, cyano, nitro, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio or unsubstituted or one- to five-fold substituted aryl or unsubstituted or substituted hetaryl, the substituents selected from the group consisting of halogen, cyano, OH, SH, NO<sub>2</sub>, COOH, COOR<sub>2</sub>, CONH<sub>2</sub>, CONR<sub>2</sub>R<sub>3</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, halo-C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyloxy, C<sub>3</sub>-C<sub>6</sub>-cycloalkylthio, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, halo-C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, halo-C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>2</sub>-C<sub>6</sub>-alkenylthio, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylthio, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfinyl, C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl, halo-C<sub>2</sub>-C<sub>6</sub>-alkenylsulfonyl and NR<sub>2</sub>R<sub>3</sub>;

X<sub>1</sub> and X<sub>2</sub>, independently of one another, are NR<sub>14</sub>, O or S;

R<sub>14</sub> signifies hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>4</sub>-alkylcarbonyl; and at least one of a physiologically acceptable carrier or dispersant.

Claim 28. (Previously presented) The composition of claim 27, wherein

R<sub>1</sub> is hydrogen, halogen, NO<sub>2</sub>, C<sub>1</sub>-C<sub>6</sub>-alkyl, halo-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy or halo-C<sub>1</sub>-C<sub>6</sub>-alkoxy;

R<sub>1</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, formyl, C<sub>1</sub>-C<sub>4</sub>-alkylcarbonyl or benzyl;

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen halogen, nitro, C<sub>1</sub>-C<sub>4</sub>-alkyl, halo-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy or halo-C<sub>1</sub>-C<sub>4</sub>-alkoxy; and X<sub>1</sub> and X<sub>2</sub>, independently of one another, are NH, O or S.

Claim 29. (Previously presented) The composition of claim 27, wherein

R<sub>1</sub> is hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy;

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkyl, formyl or benzyl;

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen halogen, nitro, C<sub>1</sub>-C<sub>2</sub>-alkyl or halo-C<sub>1</sub>-C<sub>2</sub>-alkyl; and

X<sub>1</sub> and X<sub>2</sub> are O.

Claim 30. (Previously presented) The composition of claim 27, wherein

R<sub>1</sub> is hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy;

R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkyl, formyl or benzyl;

R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, halogen, nitro or CF<sub>3</sub>; and

X<sub>1</sub> and X<sub>2</sub> are O.

Claim 31. (New) The composition of claim 27, wherein

R<sub>1</sub> is hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, or C<sub>1</sub>-C<sub>6</sub>-alkoxy;

each of R<sub>2</sub> and R<sub>3</sub>, independently of one another, signify hydrogen, C<sub>1</sub>-C<sub>2</sub>-alkyl, or formyl;

each of R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub> and R<sub>13</sub>, independently of one another, are hydrogen, fluorine, or CF<sub>3</sub>; and

each of X<sub>1</sub> and X<sub>2</sub> are O.

Claim 32. (New) The composition of claim 31, wherein R<sub>2</sub> and R<sub>3</sub> each signify hydrogen.

Claim 33. (New) The composition of claim 32, wherein R<sub>1</sub> is hydrogen.

Claim 34. (New) The composition of claim 27, wherein the compound is 4,6-bis-(4-fluoro-3-(trifluoromethyl)phenoxy)-pyrimidin-5-ylamine.

Claim 35. (New) The composition of claim 27, wherein the endoparasites are ticks and the non-human mammal is a warm-blooded animal.

Claim 36. (New) The composition of claim 27, wherein the composition is formulated as a pour-on or spot-on formulation, wherein said formulation is applied locally on a small area of the non-human animal but gives protection or treatment to almost any part of said non-human animal.